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INFORMATION DISCLOSURE
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Date Submitted: July 18, 2002

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Sheet 1 of 4

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First Nam d Invent r	Mau.ice M. MOLO	NEY et al. O
Group Art Unit	1638	9
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Attorney Docket Number	034547-0106	

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Examiner Cite No.1		U.S. Patent Document		No. of Detector or Applicant of	Date of Publication of	Pages Columns, Lines, Where Relevant		
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DX	A2 A3 A4 A5	WO WO WO	93/07278 97/02352 00/36126 00/58352		CIBA-GEIGY AG CIBA-GEIGY AG NOVARTIS AG THE REGENTS OF THE UNIVERSITY OF CALIFORNIA	04/15/1993 01/23/1997 06/22/2000 10/05/2000		1 1 1
	A6	EP	0 193 259		PLANT GENETIC SYSTEMS N.V.	09/03/1986		

		OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
DIF		RADKE, et al., "Transformation of <i>Brassica napus</i> L. using <i>Agrobacterium tumefaciens</i> : Developmentally Regulated Expression of a Reintroduced Napin Gene", Theor. Appln. Genet., Springer-Verlag, Vol. 75, pp. 685-694, (1988)	
1	A8	TAYLOR, et al., "Storage-protein Regulation and Lipid Accumulation in Microspore embryos of <i>Brassica napus</i> L.", Planta, Springer-Verlag, Vol. 181, pp. 18-26, (1990)	
	A9	SIJMONS, et al., "Production of Correctly Processed Human Serum Albumin in Transgenic Plants", Bio/Technology, Vol. 8, pp. 217-221, (1990)	
	A10	HUANG, "Lipid Bodies", Modern Methods Plant Analysis, Vol. 1, pp. 145-151, (1985)	
V	A11	MISRA, et al., "Heavy Metal Tolerant Transgenic <i>Brassica napus</i> L. and <i>Nicotiana tabacum</i> L. Plants", Theor. Appl. Genet., Springer-Verlag, Vol. 78, pp. 161-168, (1989)	

Examiner Signature	Sairl)4	Date Considered	1/5/03

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		OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS	_
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T⁵
M-	A12.	HATZOPOULOS, et al., "Interaction of Nuclear Factors with Upstream Sequences of Lipid Body Membrane Protein Gene from Carrot", The Plant Cell, American Society of Plant Physiologists, Vol. 2, pp. 457-467, (1990)	
	A13	LEE, et al., "Maize Oleosin is Correctly Targeted to Seed Oil Bodies in <i>Brassica napus</i> Transformed with the Maize Oleosin Gene", Biology, Proc. Natl. Acad. Sci. USA, Vol. 88, pp. 6181-6185, (1991)	
	A14 ;	VANCE, et al., "Expression of Lipid Body Protein Gene during Maize Seed Development", The Journal of Biological Chemistry, The American Society for Biochemistry and Molecular Biology, Inc., Vol. 263, No. 3, pp. 1476-1481, (1988)	
	A15	VANCE, et al., "The Major Protein from Lipid Bodies of Maize", The Journal of Biological Chemistry, The American Society for Biochemistry and Molecular Biology, Inc., Vol. 262, pp. 11275-11279, (1987)	
	A16	QU, et al., "Oleosin KD 18 on the Surface of Oil Bodies in Maize", The Journal of Biological Chemistry, The American Society for Biochemistry and Molecular Biology, Inc., Vol. 265, No. 4, pp. 2238-2243, (1990)	
1	A17	SENGUPTA-GOPALAN, et al., "Developmentally Regulated Expression of the Bean β-Phaseolin Gene in Tobacco Seed", Developmental Biology, Proc. Natl. Acad. Sci, USA, Vol. 82, pp. 3320-3324, (1985)	
DN	A18	FRALEY, et al., "Expression of Bacterial Genes in Plant Cells", Genetics, Proc. Natl. Acad. Sci, USA, Vol. 80, pp. 4803-4807, (1983)	
D	A19	VANDERKERCKHOVE, et al., "Enkephalins Produced in transgenic Plants using Modified 2S Seed Storage Proteins", Bio/Technology, Vol. 7, pp. 929-932, (1989)	
M	A20	MURPHY, et al., "Synthesis of the Major Oil-body Membrane Protein in Developing Rapeseed (<i>Brassica napus</i>) Embryos", Biochem. J., Vol. 258, pp. 285-293, (1989)	
DX	A21	QU, et al., "Characteristics and Biosynthesis of Membrane Proteins of Lipid Bodies in the Scutella of Maize (Zea mays L.)", Biochem. J., Vol. 235, pp. 57-65, (1986)	
	A22	JOSEFSSON, et al. "Structure of a Gene Encoding the 1.7 S Storage Protein Napin, from <i>Brassica napus</i> ", The Journal of Biological Chemistry, Vol. 262, No. 25, pp. 12196-12201, (1987)	
	A23	SCOFIELD, et al., "Nucleotide Sequence of A Member of the Napin Storage Protein Family From <i>Brassica napus</i> ", Journal of Biological Chemistry, The American Society for Biochemistry and Molecular Biology, Inc., Vol. 262, No. 25, pp. 12202-12208, (1987)	
	A24_	FUJIKAWA, et al., "Bovine Factor X1 (Stuart Factor), Mechanism of Activation by a Protein from Russell's Viper Venom", Biochemistry, Vol. 11, pp. 4892-4899, (1972)	
1	A25	NAGAI, et al., "Oxygen Binding Properties of Human Mutant Hemoglobins Synthesized in <i>Escherichia coli</i> ", Biochemistry, Proc. Natl. Acad. Sci. USA, Vol. 82, pp. 7252-7255, (1985)	

Examiner Signature	Dairf,	\mathcal{I}	Date Considered	1/5/	63

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1 Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

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Complete if Known Substitute for form 1449B/PTO Applicati n Numb r 09/897,425 ANFORMATION DISCLOSURE 07/03/2001 STATEMENT BY APPLICANT Filing Dat Maurice M. MOLONEY et a First Named Invent r 2002 Date Submitted: July 18, 2002 1638 Group Art Unit Unassigned 1 **Examiner Name** (useras many sheets as necessary) 034547-0106 Attorney Docket Number Sheet 3

		OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
DX 126	A26	SCHOLTISSEK, et al., "A Plasmid Vector System for the Expression of a Triprotein Consisting of Betagalactosidase, a Collagenase Recognition Site and a Foreign Gene Product", Gene, Elsevier, Vol. 62 pp. 55-64, (1988)	
1	A27	BEVAN, "Binary Agrobacterium Vectors for Plant Transformation", Nucleic Acids Research, IRL Press Limited, Vol. 12, No. 22, pp. 8711-8721, (1984)	
	A28	MURPHY, et al., "A class of Amphipathic Proteins Associated with Lipid Storage Bodies in Plants", Biochem. Biophys. Acta, Elsevier Science Publishers, Vol. 1088, pp. 86-94, (1991)	
	A29	ANTONI, et al., "A Short Synthetic Peptide Fragment of Human Interleukin 1 with Immunostimulatory But not Inflammatory Activity", The Journal of Immunology, The American Association of Immunologists, Vol. 137, pp. 3201-3204, (1986)	L
	A30	AN, et al., "New Cloning Vehicles for Transformation of Higher Plants", Embo J., IRL Press Limited, Vol. 4, pp. 277-284, (1985)	
	A31	HOOD, et al., "The Hypervirulence of <i>Agrobacterium tumefaciens</i> A281 is encoded in a Region of pTiBo542 outside of T-DNA", Journal of Bacteriology, American Society for Microbiology, Vol. 168, No. 1, pp. 1291-1301, (1986)	
N	A32	HOLBROOK, et al., "Oilbody Proteins in Microspore-Derived Embryos of <i>Brassica napus</i> ", Plant Physiol. Vol. 97, pp. 1051-1058, (1991)	
	A33	KALINSKI, et al., "Molecular Cloning of a Protein Associated with Soybean Seed Oil Bodies that is Similar to Thiol Proteases of the Papain Family", The Journal of Biological Chemistry, Vol. 265, pp. 13843-13848, (1990)	
	A34	BOSCH, et al., "A Trout Growth Hormone is Expressed, Correctly Folded and Partially Glycosylated in the Leaves but not the Seeds of Transgenic Plants", Transgenic Research, Chapman & Hall, Vol. 3, pp. 304-310, (1994)	
	A35	KOREN, et al., "Carp Growth Hormone: Molecular Cloning and Sequencing of cDNA", Cell, Vol. 77, pp. 309-315, (1989)	
1	A36	BOWER, et al., "Two members of the Thioredoxin-h Family Interact with the Kinase Domain of a Brassica S Locus Receptor Kinase", Plant Cell, American Society of Plant Physiologist, Vol. 8, pp. 1641-1650, (1996)	
,	A37	CARUGO, et al., "NADP-Dependent Enzymes. I: Conserved Stereochemistry of Cofactor Binding", Proteins, Wiley-Liss, Inc., Vol. 28, pp. 10-28, (1997)	
	A38	DEL VAL, et al., "Thioredoxin Treatment Increases Digestibility and Lowers Allergenicity of Milk", J. Allerg. Clin. Immunol., Vol. 103, pp. 690-697, (1999)	
V	A39	GALKIN, et al., "Construction of a New Leucine Dehydrogenase with Preferred Specificity for NADP+ by Site-Directed Mutagenesis of the Strictly NAD+-Specific Enzyme", Protein Engineering, Oxford University Press, Vol. 10, pp. 687-690, (1997)	

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01-	A40	GAUTIER, et al., "Characterization of Wheat Thioredoxin h cDNA and Production of an Active Triticum Aestivum Protein in <i>Escherichia coli</i> ", Eur. J. Biochem., FEBS, Vol., 252, pp. 314-324, (1998)	
1	A41	HÖÖG, et al., "Nucleotide Sequence of the Thioredoxin Gene from <i>Escherichia coli</i> ", Bioscience Reports, Vol. 4, pp. 917-923, (1984)	
	A42	HOLMBERG, et al., "Redesign of the Coenzyme Specificity in L-Lactate Dehydrogenase from <i>Bacillus</i> stearothermophilus Using Site-Directed Mutagenesis and Media Engineering", Protein Engineering, Oxford University Press, Vol. 12, pp. 851-856, (1999)	
).	A43	HURLEY, et al., "Determinants of Cofacto: Specificity in Isocitrate Dehydrogenase: Structure of an Engineered NADP+ - NAD+ Specificity-Reversal Mutant", Biochemistry, Vol. 35, pp. 5670-5678, (1996)	
k.	A44	ISHIWATARI, et al., "Thioredoxin h is one of the Major Proteins in Rice Phloem sap", Planta, Vol. 195, pp. 456-463, (1995)	
	A45	JOHNSON, et al., "Thioredoxin System of the Photosynthetic Anaerobe <i>Chromatium vinosum</i> ", Journal of Bacteriology, American Society for Microbiology, Vol. 158, No. 3, pp. 1061-1069, (1984)	
1	A46	LUTHMAN, et al., "Rat Liver Thioredoxin and Thioredoxin Reductase: Purification and Characterization", Biochemistry, Vol. 21, No 26, pp. 6628-6633, (1982)	
1	A47	MARTY, et al., "Nucleotide Sequence of a cDNA Encoding a Tobacco Thioredoxin", Plant Mol. Biol., Vol. 17, pp. 143-148, (1991)	
1	A48	RIVERA-MADRID, "Evidence for Five Divergent Thioredoxin h Sequences in <i>Arabidopsis thaliana</i> ", Proc. Natl. Acad. Sci., Vol. 92, pp. 5620-5624, (1995)	
	A49	RUSSEL, et al., "Sequence of Thioredoxin Reductase from <i>Escherichia coli</i> ", J. Bio. Chem., Vol. 263, pp. 9015-9019, (1988)	
d	A50	SHI, et al., "A Novel Plasma Membrane-Bound Thioredoxin From Soybean", Plant Mol. Biol., Vol. 32, pp. 653-662, (1996)	
,	A51	SHIRAISHI, et al., "Engineering of Pyridine Nucleotide Specificity of Nitrate Reductase: Mutagenesis of Recombinant Cytochrome b Reductase Fragment of <i>Neurospora crassa</i> NADPH: Nitrate Reductase", Archives of Biochemistry and Biophysics, Academic Press, Vol. 358, No. 1, pp. 104-115, (1998)	
	A52	TERASHIMA, et al., "Short Communication cDNA Sequence of Bovine Thioredoxin", DNA Seq., Vol. 10, No. 3, pp. 203-205, (1999)	

Examiner Signature	David) (Date Considered	1/5/03

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